AMENDMENT OF SOLICITATI	ON/MODIFICATI	ON OF CONTRA	CT	1. Contract I		Page 1 Of 21
2. Amendment/Modification No.	3. Effective Date	4. Requisition/Purchas	se Req		5. Project No. (I	f applicable)
P00007	2004FEB26	SEE SCHEDU	ULE			
6. Issued By	Code W56HZV	7. Administered By (If	other	than Item 6)		Code S0101A
TACOM WARREN BLDG 231		DCMA HUNTSVIL			UP	
SFAE-CSS-LAV ANGELA VENDITTELLI (586)574-8359		BURGER PHILLIP: 1910 THIRD AVE				
WARREN, MICHIGAN 48397-5000		BIRMINGHAM, AL				
HTTP://CONTRACTING.TACOM.ARMY.MIL EMAIL: VENDITTA@TACOM.ARMY.MIL						
EMAID. VENDITIAGIACOM. ANMI. MID		SCE	) C	PAS NONE	ADP PT	' НQ0338
8. Name And Address Of Contractor (No., Stre	et, City, County, State and	l Zip Code)		9A. Amendmen	nt Of Solicitation !	No.
DRS TEST & ENERGY MANAGEMENT, INC.						
110 WYNN DRIVE HUNTSVILLE, AL. 35805-0927				9B. Dated (See	Item 11)	
100118712227 1121 00000 0327		-		104 Madifiant	tion Of Contract/C	Andon No
			Х	TUA. Modifica	uon OI Contract/C	order No.
TYPE BUSINESS: Large Business Perfo	rming in II S			DAAE07-02-C-		
Code 24290 Facility Code				10B. Dated (Se	e Item 13)	
	HIS ITEM ONLY APPLI	ES TO AMENDMENTS	OFSO		'C	
is extended, is not extended.	ieu as set fortii iii iteiii 14.	The nour and date spec	inea re	or receipt of On	iers	
Offers must acknowledge receipt of this amo	endment prior to the hour :	and date specified in the	solicit	ation or as ame	nded by one of the	following methods:
(a) By completing items 8 and 15, and return	-		-		-	nent on each copy of the
offer submitted; or (c) By separate letter or ACKNOWLEDGMENT TO BE RECEIVED	0					
SPECIFIED MAY RESULT IN REJECTION						
change may be made by telegram or letter, p opening hour and date specified.	provided each telegram or	letter makes reference to	o the so	olicitation and t	his amendment, ar	nd is received prior to the
12. Accounting And Appropriation Data (If red NO CHANGE TO OBLIGATION DATA	quired)					
NO CHANGE TO OBLIGATION DATA					FM	IS REQUIREMENT
13. THIS KIND MOD CODE: G	ITEM ONLY APPLIES T				DERS	
A. This Change Order is Issued Pursua		act/Order No. As Describ	bea in .		anges Set Forth I	n Item 14 Are Made In
The Contract/Order No. In Item 10.				The Ci	langes Set Forth h	i item 14 Are wade in
B. The Above Numbered Contract/Orde Set Forth In Item 14, Pursuant To T			nges (su	ich as changes i	in paying office, ap	opropriation data, etc.)
X C. This Supplemental Agreement Is En	ered Into Pursuant To Au	thority Of: Mutual Agr	reemen	ıt		
D. Other (Specify type of modification a	nd authority)					
E. IMPORTANT: Contractor is not,	X is required to sign	this document and retu	ırn	(	copies to the Issuin	g Office.
14. Description Of Amendment/Modification (	Organized by UCF section	headings, including solid	citatior	ı/contract subje	ct matter where fe	easible.)
SEE SECOND PAGE FOR DESCRIPTION						
Except as provided herein, all terms and condi and effect.	tions of the document refer	renced in item 9A or 10A	A, as he	eretofore chang	ed, remains uncha	nged and in full force
15A. Name And Title Of Signer (Type or print	)				Officer (Type or p	orint)
		MICHAEL T. F FINNELLM@TAC		L MY.MIL (586)5	74-8361	
15B. Contractor/Offeror	15C. Date Signed	16B. United Sta				16C. Date Signed
		D		(GIGNED '		000499706
(Signature of person authorized to sign)	-	By(Signa	ature o	/SIGNED/ f Contracting C	Officer)	2004FEB26
( F-1001 and 100 bigh)		(Sign		,	~/	

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Name of Offeror or Contractor: DRS TEST & ENERGY MANAGEMENT, INC.

SECTION A - SUPPLEMENTAL INFORMATION

- 1. The purpose of this modification P00007 is to extend the delivery dates for CLINs 0001AA, 0001AB, 0001AC, 0001AD, 0003AA, 0005AA, 0006AA, and 0007AA; to correct oversight from previous modification changes; to update the PMO-LAV office symbol; and to change the buyer's name.
- 2. The SF 26 coverpage, block 5 is changed to reflect the current buyer, from Wardell Dyson to Angela Vendittelli.
- 3. CLIN 0001AA (LAV-AG GPIA TPS) is modified to extend the delivery date from 09 FEB 2004 to 09 MAR 2004.
- 4. CLINS 0001AB, 0001AC, 0001AD, 0003AA, 0005AA, 0006AA, and 0007AA were modified to extend the delivery date from 08 FEB 2004 to 09 MAR 2004.
- 5. When Modification P00001 was issued, the SFR, PDR and CDR dates were changed in Sections C.9.2, C.9.3, and C.9.4, but the dates were overlooked and not changed in Section C.9. This modification P00007 corrects Section C.9 to correct the second from last sentence to reflect the correct dates for the SFR, PDR and CDR as changed by a previous modification P00001.
- 6. When Modification P00001 was issued, the Training Course duration was changed, but Sections C.14.1 was overlooked and the hours were not changed in the body of the Work Statement. This modification P00007 corrects Section C.14.1 to reflect the correct training hours. This Modification P00007 corrects the total training hours from 16 to 40 and Operator training is changed from 6 to 15 hours and the Maintenance training is changed from 10 to 25 hours (as implemented in Modification P00001).
- 7. Section F.1.1 is changed from "six (6) complete sets of LAV-AG(S) GPIA Test Program Sets (TPS)" to "CLIN 0001AA, 0001AB, 0001AC, 0001AD, 0003AA, 0005AA, 0006AA, and 0007AA". F.1.1 is also changed to reflect LTSI's current address.
- 8. Section F.1.2 is modified to change the shipment date from January 5, 2004 to March 9, 2004.
- 9. Section F.5 is changed to reflect the Government's current Office Symbol from AMSTA-DSA-LV-I to AMSTA-PM-LAV-I; and from AMSTA-DSA-LV-P to AMSTA-PM-LAV-P.
- 10. As a result of this Modification, there is not an impact to the total dollar value of this contract. The contract value remains at \$11.157,275.02.
- 11. All other terms and conditions of the contract remain unchanged and in full force and effect.

\*\*\* END OF NARRATIVE A 007 \*\*\*

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS				
0001AA	DEVELOPMENT, DEVELOP HRDWR & PRODUCTION: TPS	6	EA	\$ 1,715,692.000	\$ 10,294,152.00
	CLIN CONTRACT TYPE: Firm-Fixed-Price				
	NOUN: LAV-AG GPIA TPS PRON: J512T478EH PRON AMD: 08 ACRN: AA AMS CD: JBP002				
	CUSTOMER ORDER NO: J51JBP02EHSI FMS CASE IDENTIFIER: SI-B-JBP				
	This CLIN includes the development, developmental hardware, production, and delivery of the				
	Test Program Sets (TPS) for the LAV-AG (S) GPIA (IAW C.1-C.13.4.2).				
	(End of narrative B001)				
	Packaging and Marking				
	IAW Section D, Packaging and Marking.				
	(End of narrative D001)				
	Inspection and Acceptance INSPECTION: Origin ACCEPTANCE: Origin				
	Deliveries or Performance           DOC         SUPPL           REL CD         MILSTRIP         ADDR         SIG CD         MARK FOR         TP CD           001         W56HZV1079H007         Y00000         M         2           DEL REL CD         QUANTITY         DEL DATE           001         6         09-MAR-2004				
	FOB POINT: Origin				
	SHIP TO: PARCEL POST ADDRESS  (Y00000) SHIPPING INSTRUCTIONS FOR CONSIGNEE  (SHIP-TO) WILL BE FURNISHED PRIOR  TO THE SCHEDULED DELIVERY DATE FOR  ITEMS REQUIRED UNDER THIS  REQUISITION.				
	Delivery shall be IAW Section F.1.1  Any developmental hardware produced under this contract shall be delivered IAW Section F.1.2				

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	* Modification P00007 extends the delivery date from 09 Feb 2004				
	to 09 Mar 2004.				
	(End of narrative F001)				
	(End of marrative roof)				

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	56112225/522411625	QUIIIIII	01111	01/11/11/02	121.10 01 (1
0001AB	PRODUCTION QUANTITY	6	EA	\$** N/A **	\$\$24,349.02
	NOUN: LAV-AG NEW SITE HOLDING FIXT PRON: J512T323EH PRON AMD: 02 ACRN: AA AMS CD: JBP002 CUSTOMER ORDER NO: J51JBP02EHSI FMS CASE IDENTIFIER: SI-B-JBP				
	Packaging and Marking				
	IAW Section D, Packaging and Marking				
	(End of narrative D001)				
	Inspection and Acceptance INSPECTION: Origin ACCEPTANCE: Origin				
	Deliveries or Performance         DOC         SUPPL           REL CD         MILSTRIP         ADDR         SIG CD         MARK FOR         TP CD           001         W56HZV3036H001         Y000000         M         2           DEL REL CD         QUANTITY         DEL DATE           001         6         09-MAR-2004				
	FOB POINT: Origin				
	SHIP TO: PARCEL POST ADDRESS  (Y00000) SHIPPING INSTRUCTIONS FOR CONSIGNEE  (SHIP-TO) WILL BE FURNISHED PRIOR  TO THE SCHEDULED DELIVERY DATE FOR  ITEMS REQUIRED UNDER THIS  REQUISITION.				
	* Modification P00007 extends the delivery date from 08 Feb 2004 to 09 Mar 2004.  (End of narrative F001)				

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	or or Contractor: DRS TEST & ENERGY MANAGEMENT, INC.	OT 1 1 2 m 2 m 2 m 2	***		1350*****
ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AC	PRODUCTION QUANTITY	6	EA	\$1,048.00000	\$6,288.00
	NOUN: LAV-AG HAND STATION TEST FIXT PRON: J512T325EH PRON AMD: 02 ACRN: AA AMS CD: JBP002 CUSTOMER ORDER NO: J51JBP02EHSI FMS CASE IDENTIFIER: SI-B-JBP				
	Packaging and Marking				
	IAW Section D, Packaging and Marking				
	(End of narrative D001)				
	Inspection and Acceptance INSPECTION: Origin ACCEPTANCE: Origin				
	Deliveries or Performance           DOC         SUPPL           REL CD         MILSTRIP         ADDR         SIG CD         MARK FOR         TP CD           001         W56HZV3038H001         Y000000         M         2           DEL REL CD         QUANTITY         DEL DATE           001         6         09-MAR-2004				
	FOB POINT: Origin				
	SHIP TO: PARCEL POST ADDRESS  (Y00000) SHIPPING INSTRUCTIONS FOR CONSIGNEE  (SHIP-TO) WILL BE FURNISHED PRIOR  TO THE SCHEDULED DELIVERY DATE FOR  ITEMS REQUIRED UNDER THIS  REQUISITION.				
	* Modification P00007 extends the delivery date from 08 Feb 2004 to 09 Mar 2004.  (End of narrative F001)				

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AD	PRODUCTION QUANTITY	1	EA	\$ 1.00000 ESTIMATED	\$1.00 ESTIMATED
	NOUN: STAND ALONE GPIA MODULE PRON: J512T328EH PRON AMD: 01 ACRN: AA AMS CD: JBP002 CUSTOMER ORDER NO: J51JBP02EHSI FMS CASE IDENTIFIER: SI-B-JBP				
	Packaging and Marking				
	IAW Section D, Packaging and Marking				
	(End of narrative D001)				
	Inspection and Acceptance INSPECTION: Origin ACCEPTANCE: Origin				
	Deliveries or Performance           DOC         SUPPL           REL CD         MILSTRIP         ADDR         SIG CD         MARK FOR         TP CD           001         W56HZV3044H020         Y00000         M         2           DEL REL CD         QUANTITY         DEL DATE           001         1         09-MAR-2004				
	FOB POINT: Origin				
	SHIP TO: PARCEL POST ADDRESS  (Y00000) SHIPPING INSTRUCTIONS FOR CONSIGNEE  (SHIP-TO) WILL BE FURNISHED PRIOR  TO THE SCHEDULED DELIVERY DATE FOR  ITEMS REQUIRED UNDER THIS  REQUISITION.				
	* Modification P00007 extends the delivery date from 08 Feb 2004 to 09 Mar 2004.				
	(End of narrative F001)				

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002AA	TRAINING				\$ 55,848.00
	CLIN CONTRACT TYPE:				
	Firm-Fixed-Price				
	NOUN: LAV-AG GPIA TRAINING PRON: J512T469EH PRON AMD: 02 ACRN: AA				
	AMS CD: JBP002				
	CUSTOMER ORDER NO: J51JBP02EHSI				
	FMS CASE IDENTIFIER: SI-B-JBP				
	Training shall be IAW Section C.14				
	(End of narrative B001)				
	Inspection and Acceptance				
	INSPECTION: Origin ACCEPTANCE: Origin				
	Deliveries or Performance				
	DLVR SCH PERF COMPL				
	REL CD         QUANTITY         DATE           001         0         15-APR-2004				
	\$ 55,848.00				

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		_			
0003AA	PRODUCTION QUANTITY	1	EA	\$_326,450.00000	\$326,450.00
	CLIN CONTRACT TYPE:				
	Firm-Fixed-Price				
	NOUN: LAV-AG(S) TPS SET PRON: J512T314EH PRON AMD: 01 ACRN: AA				
	AMS CD: JBP002				
	CUSTOMER ORDER NO: J51JBP02EHSI				
	FMS CASE IDENTIFIER: SI-B-JBP				
	Packaging and Marking				
	IAW Section D, Packaging and Marking				
	(End of narrative D001)				
	Inspection and Acceptance				
	INSPECTION: Origin ACCEPTANCE: Origin				
	Deliveries or Performance				
	DOC SUPPL				
	REL CD MILSTRIP ADDR SIG CD MARK FOR TP CD				
	001 W56HZV2352H011 Y00000 M 2    DEL REL CD				
	001 1 09-MAR-2004				
	FOB POINT: Destination				
	SHIP TO: PARCEL POST ADDRESS (Y00000) SHIPPING INSTRUCTIONS FOR CONSIGNEE				
	(SHIP-TO) WILL BE FURNISHED PRIOR TO THE SCHEDULED DELIVERY DATE FOR ITEMS REQUIRED UNDER THIS				
	REQUISITION.				
	* Modification P00007 extends the				
	delivery date from 08 Feb 2004 to 09 Mar 2004.				
	(End of narrative F001)				

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004AA	DATA_ITEM			\$** NSP **	\$** NSP **
	Technical Data as set forth in Contract Data Requirements List (CDRL) (DD Form 1423).  (End of narrative B001)				
	Packaging and Marking				
	IAW Section D, Packaging and Marking.  (End of narrative D001)				
	Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination				
	Delivery shall be IAW Section F.5.				
	(End of narrative F001)				

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005AA	PRODUCTION QUANTITY	1	EA	\$_260,690.00000	\$260,690.00
OOOJAA	CLIN CONTRACT TYPE:     Firm-Fixed-Price NOUN: LAV-AG GPIA LAB TEST SET PRON: J512T317EH PRON AMD: 02 ACRN: AA AMS CD: JBP002 CUSTOMER ORDER NO: J51JBP02EHSI FMS CASE IDENTIFIER: SI-B-JBP  Packaging and Marking  IAW Section D, Packaging and Marking  (End of narrative D001)  Inspection and Acceptance INSPECTION: Origin ACCEPTANCE: Origin		Det .	\$_207,030.0000	200,030.00
	Deliveries or Performance           DOC         SUPPL           REL CD         MILSTRIP         ADDR         SIG CD         MARK FOR         TP CD           001         W56HZV2352H014         Y00000         M         2           DEL REL CD         QUANTITY         DEL DATE           001         1         09-MAR-2004				
	FOB POINT: Origin  SHIP TO: PARCEL POST ADDRESS  (Y00000) SHIPPING INSTRUCTIONS FOR CONSIGNEE  (SHIP-TO) WILL BE FURNISHED PRIOR  TO THE SCHEDULED DELIVERY DATE FOR  ITEMS REQUIRED UNDER THIS  REQUISITION.				
	* Modification P00007 extends the delivery date from 08 Feb 2004 to 09 Mar 2004.  (End of narrative F001)				

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ITEM NO	or or Contractor: DRS TEST & ENERGY MANAGEMENT, INC.  SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	Sett Ellegistik (Tells	QUINTITI	01111	CIVITIMEE	MINOCIVI
0006AA	PRODUCTION QUANTITY	1	EA	\$ 141,760.00000	\$\$141,760.00
	CLIN CONTRACT TYPE:				
	Firm-Fixed-Price				
	NOUN: LAV-AG(S) GPEOH SYSTEM				
	PRON: J512T318EH PRON AMD: 02 ACRN: AA				
	AMS CD: JBP002				
	CUSTOMER ORDER NO: J51JBP02EHSI				
	FMS CASE IDENTIFIER: SI-B-JBP				
	Packaging and Marking				
	IAW Section D, Packaging and Marking				
	(End of narrative D001)				
	(End of Harracive Door)				
	Inspection and Acceptance				
	INSPECTION: Origin ACCEPTANCE: Origin				
	<u>Deliveries or Performance</u>				
	DOC SUPPL				
	REL CD MILSTRIP ADDR SIG CD MARK FOR TP CD				
	001 W56HZV2352H015 Y00000 M 2				
	DEL REL CD QUANTITY DEL DATE				
	001 1 09-MAR-2004				
	FOB POINT: Origin				
	SHIP TO: PARCEL POST ADDRESS				
	(Y00000) SHIPPING INSTRUCTIONS FOR CONSIGNEE (SHIP-TO) WILL BE FURNISHED PRIOR				
	TO THE SCHEDULED DELIVERY DATE FOR				
	ITEMS REQUIRED UNDER THIS				
	REQUISITION.				
	* Modification P00007 extends the				
	delivery date from 08 Feb 2004 to 09 Mar 2004.				
	CO 05 Mai 2004.				
	(End of narrative F001)				
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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0007AA	PRODUCTION QUANTITY	1	EA	\$ 44,822.00000	\$\$44,822.00
	CLIN CONTRACT TYPE:				
	Firm-Fixed-Price				
	NOUN: GPIA ASU ATS-LAV AT NO. 99  PRON: J512T320EH PRON AMD: 02 ACRN: AA				
	AMS CD: JBP002 CUSTOMER ORDER NO: J51JBP02EHSI				
	FMS CASE IDENTIFIER: SI-B-JBP				
	Packaging and Marking				
	IAW Section D, Packaging and Marking				
	(End of narrative D001)				
	Inspection and Acceptance				
	INSPECTION: Origin ACCEPTANCE: Origin				
	Deliveries or Performance  DOC SUPPL				
	REL CD         MILSTRIP         ADDR         SIG CD         MARK FOR         TP CD           001         W56HZV3009H001         Y000000         M         2           DEL REL CD         QUANTITY         DEL DATE				
	001 1 08-FEB-2004				
	FOB POINT: Origin				
	SHIP TO: PARCEL POST ADDRESS  (Y00000) SHIPPING INSTRUCTIONS FOR CONSIGNEE  (SHIP-TO) WILL BE FURNISHED PRIOR  TO THE SCHEDULED DELIVERY DATE FOR  ITEMS REQUIRED UNDER THIS				
	REQUISITION.				
	* Modification P00007 extends the delivery date from 08 Feb 2004 to 09 Mar 2004.				
	(End of narrative F001)				

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NOTH: COMMUNICATION FROM AND 01 ACRES AS DROWN INTERESTANCE DESCRIPTION FROM AND 01 ACRES AS AMERICA ARRONDER CONTROL OF STREET ACCOUNT OF	ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
PRON: J512T347EH PRON AMD: 01 ACRN: AA  AMS CD: JBP002 CUSTOMER ORDER NO: J51JBP02EHSI FMS CASE IDENTIFIER: SI-B-JBP  Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination  Deliveries or Performance DLVR SCH PERF COMPL REL CD OUANTITY DATE  001 0 15-AUG-2004	AA8000	CAGE CODES & ADDRESSES				\$\$
Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination  Deliveries or Performance DLVR SCH PERF COMPL REL CD QUANTITY DATE 001 0 15-AUG-2004		PRON: J512T347EH PRON AMD: 01 ACRN: AA AMS CD: JBP002				
INSPECTION: Destination ACCEPTANCE: Destination  Deliveries or Performance  DLVR SCH PERF COMPL  REL CD QUANTITY DATE  001 0 15-AUG-2004						
DLVR SCH PERF COMPL  REL CD QUANTITY DATE  001 0 15-AUG-2004						
		DLVR SCH PERF COMPL REL CD QUANTITY DATE				

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Name of Offeror or Contractor: DRS TEST & ENERGY MANAGEMENT, INC.

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

- C.1 GENERAL PURPOSE INTERFACE ASSEMBLY (GPIA) TEST PROGRAM SETS (TPS).
- C.1.1 Light Armored Vehicle-Assualt Gun (Saudi Arabia National Guard) (LAV-AG (S)) GPIA TPS. The Contractor shall upgrade/retrofit the existing six (6) fielded LAV-S GPIA, part number 7300000, for use in fault detection, alignment/adjustment and testing the LAV-AG (S) Line Replaceable Units (LRU). The part number for the LAV-AG(S) will be 7300006. As a minimum, the upgraded LAV(S) GPIA shall consist of Automatic Test Equipment and Test Program Sets (TPS), i.e., interconnecting devices, accessory storage unit and system specific modules.
- C.1.1.1 The Contractor shall travel to the Kingdom of Saudi Arabia to retrofit the existing six (6) fielded LAV(S) GPIA to incorporate the LAV-AG Test Program Set.
- C.1.2 LAV-AG(S) LINE REPLACEABLE UNITS (LRU). The Test Program Set (TPS) shall test and fault isolate off vehicle LRUs to the
- C.1.2.1 The Government will ship, to the Contractor, the Government Furnished Equipment (GFE) items listed in Attachment 4 Not Later Than (NLT) 30 days after contract award. The Contractor shall return the GFE to the Government, in accordance with F.4, in the same condition as it was received, less normal wear and tear.
- C.1.3 DEFINITIONS and ACRONYMS.
- C.1.3.1 Direct Support Electrical System Test Sets (DSESTS) A microprocessor based automatic test system, which provides troubleshooting capability for weapon systems. The modular design permits user groups to select only the necessary equipment elements to support unique vehicle test requirements.
- C.1.3.2 Automatic Test Equipment (ATE) The equipment used in troubleshooting the LRUs.
- C.1.3.3 Interconnecting Device provides the mechanical and electrical connection and signal conditioning, if required, between the ATE and LRU.
- C.1.3.4 Line Replaceable Unit (LRU) a major box or enclosure of a subsystem interconnected by external cables and connectors. The LRUs for this effort are identified in Attachment 4.
- C.1.3.5 Shop Replaceable Unit (SRU) includes the components that make up the LRU. These are also identified in Attachment 4 as the down parts to the LRU.
- C.1.3.6 Component a part, resistor, transistor, or integrated circuit mounted on a circuit board or other modular assembly.
- C.1.3.7 Go-Chain Run a complete test cycle performed on the test program set to verify that it accepts functionally good LRUs.
- C.1.3.8 Assembly (Assy) a collection, grouping or set of parts, sub-assemblies or components brought/joined together to perform a specific function. An assembly forms a complete unit, end-item, structure or other article/item, e.g., sub-assembly, component system, kit or system group/unit.
- C.1.3.9 Test Program Set (TPS) a TPS consists of the peculiar software, hardware, and documentation that are used in conjunction with ATE to detect and isolate failures within an LRU. It shall include the Test Program (TP) on a storage media such as magnetic tape, interconnecting device and accessories, and assorted documentation. The TPS shall be structured to provide the total interface between the LRU and the peculiar hardware which will provide for LRU performance verification and fault detection and isolation to the levels specified herein.
- ${\tt C.1.3.10} \quad {\tt Test \ Set includes \ the \ software \ and \ hardware \ developed \ for \ the \ LAV-AG(S) \ GPIA.}$
- C.1.3.11 Type II Nonconforming Supplies and Services include those supplies and services which depart from the contract requirements and are minor in nature, lacking importance or significance, and do not affect performance, durability, interchangeability, effective use or operation weight or appearance, health and safety.
- C.1.3.12 Acronyms. See Attachment 5 for a list of acronyms.
- C.1.3.13 End of definitions and acronyms.
- C.1.4 DISPLAY. The GPIA-LAV-AG(S) shall have the capability to allow the Color Display to show operator messages, in either English or Arabic at the push of a button at any time during operation. Labels and markings for switches, knobs, modules, and accessory boxes shall be in Arabic and English if room allows. If space is insufficient to show both Arabic and English, the Contractor shall provide

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Name of Offeror or Contractor: DRS TEST & ENERGY MANAGEMENT, INC.

English overlays for operator control panels. Connector pin and receptacle markings (alpha and numeric) shall be in English.

C.1.5 GFE. The Contractor has in its possession Government Furnished Equipment (GFE) provided under contract DAAE07-97-C-X094 that is listed in Attachment 1. This GFE may be used for development, testing, and verification of engineering/logistics deliverables and acceptance testing of the GPIA-LAV-AG(S) TPS.

Reference C.1.2.1 for GFE provided under this effort.

- C.1.6 DESIGN REQUIREMENTS. The Contractor shall design the LAV-AG unique GPIA-LAV-S hardware to meet the requirements of the DSESTS Prime Item Product Fabrication Specification, 19207-12323271.
- C.1.7 QUALIFICATION TESTING. The Contractor shall conduct design qualification testing in accordance with the LAV(S) GPIA Direct Support Electrical System Test Sets (DSESTS) prime item product fabrication specification, 19207-12323271, as applicable to the LAV-AG hardware. To the maximum extent possible, qualification testing shall be performed by analyses and comparison to unique LAV-AG design hardware.
- C.1.8 SELF TEST. The LAV(S) GPIA's power-up self test and Functional Self Test (FST) shall be updated to include the LAV-AG(S) GPIA TPS.
- C.2 TPS DEVELOPMENT. The Contractor shall develop test programs sets which make maximum effective use of any special testability features integrated into the functional design of the LRU.
- C.2.1 The Government reserves the right to audit the TPS process at the Contractor's facility, after first arranging with the Contractor for a mutually convenient date.
- C.3 FAULT DETECTION. The LAV-AG(S) GPIA Module shall detect one hundred percent (100%) of all detectable faults to the Shop Replaceable Unit (SRU) level. The Contractor shall notify the Government if it can not comply with this requirement because of LRU design limitations and the contract may be modified accordingly.
- C.4 FAULT ISOLATION. The test program shall be designed to fault isolate failure modes to the SRU level. If testing indicates a high failure rate in a mode not depicted, then that failure shall be added to the list. The LAV-AG(S) GPIA shall meet the following minimum ambiguity group requirements:
- C.4.1 It is desired that at least ninety percent (90%) of detectable faults shall be isolated to an individual SRU. An estimate of final TPS fault isolation criteria shall be presented at the Preliminary Design Review (PDR) and fully assigned through bilateral agreement at the Critical Design Review (CDR) (reference C.9.4).
- C.4.2 Detected faults that can not be isolated to a single SRU shall be isolated to no more than two (2) SRUs. The Contractor will notify the Government at Critical Design Review (CDR) (Ref. C.9.4) if it can not comply with this requirement.
- C.5 FAULT INSERTION LIST (FIL). The Contractor shall create a list of 100% detectable failures for each LRU, to be submitted as an appendix to the CDR minutes (CDRL A002). Faults indentified after the CDR shall be added to the FIL. This list shall contain all detectable faults to be utilized during the LAV-AG(S) GPIA development and its acceptance. A detectable failure is defined as any failure which causes degradation severe enough to cause out of tolerance LRU performance and can be detected at an external I/O connector of the LRU.
- C.5.1 Fault insertion shall abide by the following:
- C.5.1.1 Faults shall be entered one at a time (no more than one fault at a time). All faults listed shall be independent faults, i.e., not caused by other faults.
- C.5.1.2 Faults must not be destructive to the LRU or LAV-S GPIA. Any fault which could result in catastrophic failure of the LRU or the ATE shall not be inserted.
- C.5.2 The Government will select up to 50% of the approved Fault Insertion List (FIL) for Software Acceptance Testing (SAT) of the LAV-AG(S) GPIA (para E.1.2.3). The Government will identify faults to be inserted at the start of the SAT.
- C.6 TEST PROGRAM. The Contractor shall test all LAV-AG(S) GPIA developed hardware and software. Testing shall include verification of all interfaces and accessories. The test shall be conducted IAW the approved test procedures (para E.1.2.3, E.1.2.3.1, E.1.2.3.2, CDRL A001, and CDRL A004).
- C.7 LAV-AG(S) GPIA DOCUMENTATION. Documentation for LAV-S GPIA shall be updated to incorporate the LAV-AG(S) TPS. The update shall consist of those items necessary to establish LRU automated test requirements and strategy to document LAV-AG(S) TPS development, evaluation and acceptance, and to accomplish LAV-AG(S) GPIA Operation and Support.

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C.8 INTERCONNECTING DEVICES DESIGN REQUIREMENT. Interconnecting devices shall be designed to maximize commonality with existing interconnecting devices to maximize design simplicity and testability, and to minimize cost.

- C.8.1 All probes, circuitry components, etc. in the interconnecting device that are not used for LAV-AG(S) GPIA functional testing, but are used for diagnostic testing, shall have a fault inserted into it and tested as defined in Section E.1.2.
- C.9 GPIA-LAV-AG(S) MEETING/REVIEWS. The Contractor, at its facility, shall conduct a Start of Work Meeting, a System Functional Review (SFR), a Preliminary Design Review (PDR), a Critical Design Review (CDR), and Test Readiness Reviews(TRRs) for the GPIA-LAV-AG(S) hardware and software. The Contractor shall coordinate the agenda items with the Government 20 days prior to the meetings/reviews, with the exception of the Start of Work meeting for which the agenda items shall be coordinated 15 days prior to the meeting. Minutes shall be prepared by the Contractor and submitted IAW CDRL A002. All meetings and reviews shall not exceed two (2) days in length to discuss progress and resolve development problems. The Government and Contractor may agree to augment the meetings with Video-Teleconference sessions. The SFR shall occur no later than 120 Days after Contract (DAC), the PDR \* shall occur no later than 210 DAC, and the CDR NLT 395 DAC. The TRRs shall occur 30 days prior to the start of Qualification/Acceptance testing \* projected in C.1.7, and E.1.2.3.
- C.9.1 CONTRACT START OF WORK (SOW) MEETING. The Contractor shall conduct a SOW meeting NLT 30 days after contract award. The SOW meeting shall not exceed one (1) day. The Contractor shall coordinate the agenda items with the Government 15 days prior to the SOW meeting. Appropriate (not all-inclusive) topics to be discussed are:
  - (a) Maintenance Plan
  - (b) Supply Support
  - (c) Support Equipment and Test Measurement and Diagnostic Equipment (TMDE)
  - (d) Technical Data/Technical Manuals/Drawings
  - (e) Computer Resources Support
  - (f) Provisioning Guidance
  - (g) Design Influence and Integration
  - (h) Packaging, Handling, Storage, and Transportation (PHS&T)
  - (i) Configuration Management
  - (j) Post Production Support
  - (k) Government Furnished Material and Information
  - (1) Training
  - (m) Engineering Issues
    - (n) TM Review dates
- C.9.2 SYSTEM FUNCTIONAL REVIEW (SFR). The Contractor shall conduct the SFR NLT 120 DAC. The Contractor shall demonstrate a comprehensive:
  - (a) Understanding of technical and operational requirements
  - (b) Definition/understanding of the internal and external functional interfaces
  - (c) Definition/understanding of the functional architecture
  - (d) Plan regarding specific AG integration concerns and carryover issues/outputs from prior GPIA development.
- C.9.3 PRELIMINARY DESIGN REVIEW (PDR). The Contractor shall conduct a PDR NLT 210 DAC. The PDR shall address the Contractors initial design solution with a presentation including, but not limited to: design constraints, measures of performance, analysis of alternatives, description of system elements, and quantification of faults isolation, insertion, detection effectiveness, maintainability, reliability, etc.
- \* Corrected in Modification P00007.

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C.9.4 CRITICAL DESIGN REVIEW (CDR). The Contractor shall conduct a CDR NTL 395 Days After Contract Award (DAC). At the CDR the

- (a) The software and hardware design is consistent with the LRU test requirements.
- (b) Fault detection and fault isolation has been done in a logical and concise manner.
- (c) Electrical and mechanical design of interconnecting device/test accessories.
- (d) Configuration management practices have been followed.
- (e) Integrated Logistic Support (ILS) impacts are addressed
- C.9.5 TEST READINESS REVIEW (TRR). The Contractor shall conduct the TRR with the Government 30 days prior to the start of Qualification/Acceptance testing to assure the test plan is adequate to satisfy technical and operational exit criteria in accordance with the contract specifications & requirements. The TRR shall include the following:
  - (a) Milestone Schedule
  - (b) Requirement modifications
  - (c) System design
  - (d) Test plans and descriptions (Software Test Description and Software Test Reports to be reviewed)
  - (e) CSCIs

Contractor is required to show:

- (f) Test Procedures (Software Test Procedures)
- (g) Software Test Resources
- (h) Software problems
- C.10 CONFIGURATION MANAGEMENT(CM).
- C.10.1 CM PROGRAM REQUIREMENTS. The Contractor shall develop and maintain a Configuration Management (CM) program in accordance with this SOW. The Contractor shall notify the Government if any change to their ISO 9001 and CP2 certifications occur.
- C.10.2 CONFIGURATION IDENTIFICATION/PRODUCT BASELINE. The Contractor shall maintain a LAV(S) AG TPS configuration identification and establish a product baseline. The product baseline, for the LAV-S GPIA shall be updated to incorporate the LAV-AG(S) TPS and describe the necessary "build to" requirements for the LAV-AG(S) GPIA. The product baseline will be established after the approval of the Software Acceptance Test (SAT) as described in E.1.2.3.
- C.10.3 CONFIGURATION STATUS ACCOUNTING (CSA). The Contractor shall maintain/update the established CSA system. As a minimum, the CSA system shall provide identification of the currently approved configuration baseline.
- C.10.4 TECHNICAL DATA PACKAGES (TDP). The Contractor shall develop new drawings for the LAV-AG(S) TPS. These Product Drawings and Associated Lists shall be used as the engineering data for procuring, controlling, and using materials, parts, and assemblies, whether produced in-house or vendor supplied. The drawings shall be used for the manufacture, assembly, inspection, testing, and configuration management of the materials, parts, modules, subassemblies, and assemblies of the equipment covered by this contract.
- C.11 QUALITY ASSURANCE.
- C.11.1 QUALITY ASSURANCE PROGRAM. The Contractor shall implement and maintain a Quality Program Plan which meets the requirements of ISO 9001 and CP2. This plan shall be made available for review by the Government at the Contractor's facility upon request.
- C.11.2 SOFTWARE QUALITY PROGRAM. The Contractor shall implement and maintain the Software Quality Program Plan submitted with the proposal. This Software Quality Program Plan shall meet the requirements of IEEE Std 730 or an equivalent software quality system standard. The Contractor shall be required to submit any updates to the Software Quality Program Plan to the Government for approval, only if revisions to the existing plan are required. These revisions shall be submitted to the Government IAW CDRL A005.
- C.12 CONTROL OF NONCONFORMING MATERIAL. The Contractor, with Government Quality Assurance Representative (QAR) participation, shall maintain a Material Review Board (MRB) procedure for the purpose of review, evaluation and disposition of Type II nonconforming supplies and services (Reference Section C.1.3.12). All nonconforming material which is classified as other than minor shall require a waiver and approval by the PCO.
- C.13 INTEGRATED LOGISTICS SUPPORT.
- C.13.1 INTEGRATED LOGISTICS SUPPORT PROGRAM. The Contractor shall plan, manage, and execute an ILS program for the LAV-AG(S) GPIA.
- C.13.2 MAINTENANCE ECHELONS. Logistical resources shall be identified for organizational, intermediate, and depot levels of maintenance (reference attachment 3).

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#### C.13.3 PROVISIONING.

- C.13.3.1 PROVISIONING SCREENING. The Contractor shall use FEDLOG, HAYSTACK, or other available Government databases for provisioning screening on the LAV-AG(S) GPIA. National Stock Number (NSN) assignment is not required. The results of the Provisioning Screening effort shall be reflected in the Parts section of the Manual. If a part number does not have a NSN already assigned from the DOD database then the contractor shall list the part number and Cage code of the manufacturer in the Parts section of the manual.
- C.13.4 Technical Manual (TM) REVIEWS. The contractor shall host no more than two TM reviews at their site. The purpose of the TM review is for the Government to review the data. The Government will perform a verification of the TM material on the hardware. Government comments shall be incorporated into the final TMs and changed pages.
- C.13.4.1 TECHNICAL MANUALS (TMs). The Contractor shall prepare and deliver changed pages to TM Test Set 14-1 & SLA and prepare and deliver a new TM Test Set 14-5 & SLA to reflect the addition of the GPIA-LAV-AG(S). TMs for the LAV-AG(S) GPIA will be prepared IAW Technical Manual Contract Requirements (TMCR) A4-94, Attachment 2, IAW CDRL A003. Final TMs (2 sets) shall be delivered concurrent with the six TPS modules.
- C.13.4.2 TECHNICAL MANUAL CHANGES. If existing LAV-S GPIA hardware is modified, procedures are revised, or new procedures are developed by the addition of the LAV-AG(S) GPIA hardware/components, the Contractor shall validate the revised procedures for technical accuracy and adequacy of content IAW TMCR Attachment 2.

#### C.14 TRAINING.

- C.14.1 The Contractor shall develop and conduct a training course for the operation and maintenance of the LAV-AG(S) TPS. The training course shall provide instruction, in English, for operation, testing, and repair of GPIA-LAV-AG(S). The course shall consist of forty (40) hours of training for a
- maximum of fifteen (15) students. The course shall be divided into two segments: Operator (15 hours) and Maintenance (25 hours).
- C.14.2 The training course shall be conducted in the Kingdom of Saudi Arabia. The Government will notify the Contractor NLT 60 days prior to the date the Government requires the GPIA training to commence (tentatively scheduled for 2nd Quarter, Calendar Year 2004).
- C.14.3 The Contractor shall provide each student a course handout listing curriculum, hours of instruction, learning objectives, copy of revised TM Test Set (S) -14-1 & SLA and TM Test Set (S) -14-5 & SLA, and all other materials required by the student to successfully attain the learning objectives.
- C. 15 PARTNERING. In an effort to effectively accomplish the objectives of this contract, the Government, Contractor, and major Subcontractors shall engage in the Partnering Process for the TPS. Participation in the Partnering process is based upon mutual commitment between the Government and the Contractor(s) to work cooperatively as a team to identify and resolve problems and facilitate contract performance. The intent of the partnering process is a commitment for the parties to agree to work together as a team to expeditiously solve problems as they occur, to communicate effectively, and to avoid surprises.
- C.15.1 The primary objective of the Partnering process is to provide the user with the highest quality supplies/services on time and at the reasonable price. Partnering requires the parties to look beyond the strict bounds of the contract in order to formulate actions that promote common goals an objectives between the Government and Contractor.
- It is a relationship that is based upon open and continuous communication, mutual trust an respect, and the replacement of the "us vs. them" mentality of the past with a "win-win" philosophy for the future. Partnering also promotes synergy, creative thinking, pride in performance, and the creation of a shared vision for success.
- C.15.2 This Partnering Process does not affect the legal responsibilities or relationship of the parties, and cannot be used to alter, supplement, or deviate from the terms of the contract. Any changes to the contract must be executed in writing by the Contracting Officer.
- \* Corrected by Modification P00007.

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SECTION F - DELIVERIES OR PERFORMANCE

F.1 DELIVERIES.

F.1.1 HARDWARE. The Contractor shall deliver CLINs 0001AA, 0001AB, 0001AC, 0001AD, 0003AA, 0005AA, 0006AA, and 0007AA:

LTSI Transportation Center

ATTN: Mr. Scott Martin (Phone: 410-379-9600)

7150 Troy Hill Drive

Elkridge, MD 21075

MARK FOR: Shipment to KSA/OPM-SANG; ATTN: Bill Childers

- F.1.2 DEVELOPMENTAL HARDWARE (PROTOTYPE). Any developmental Hardware developed under this contract shall be shipped NLT March 9, 2004. Detailed shipping instructions will be provided NLT 30 days prior to shipment.
- F.2 TRAINING. The Training shall be performed IAW Section C.14.
- F.3 TPS installation in KSA. The Contractor shall install CLIN 0001AA hardware (six TPS') into six fielded LAV-AG(S) GPIA NLT the start of in-KSA training under CLIN 0002AA.
- F.4 GOVERNMENT FURNISHED EQUIPMENT (GFE). The Government will provide shipping information for the return of the GFE within 60 days after the Contractor has shipped the production items.
- \* Changed by Modification P00007
- F.5 CONTRACT DATA REQUIREMENTS LIST (CDRL) DELIVERABLES: The CDRL deliverables shall be provided as specified in each individual CDRL. The following address shall be used for data delivered to:

AMSTA-DSA-LV-I:

TACOM

Attn: AMSTA-DSA-LV-I Warren, MI 48397-5000

AMSTA-DSA-LV-P:

TACOM

Attn: AMSTA-DSA-LV-P Warren, MI 48397-50000

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ATTENDEES (of meetings):

Obtain the attendee's address at the meetings.

\*\*\* END OF NARRATIVE F 001 \*\*\*

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